



supplying the carboniferous liquid state material in discharge plasma created by the arc discharges; and

disintegrating or exciting the carboniferous liquid state material to produce the single-walled carbon nanotubes.

2. (Amended) A method of manufacturing single-walled carbon nanotubes according to Claim 1, wherein the carboniferous liquid state material is an organic solvent.

3. (Amended) A method of manufacturing single-walled carbon nanotubes according to Claim 1, wherein the carboniferous liquid state material is any of a petroleum liquid, mineral oil, and fatty acid ester.

4. (Amended) An apparatus that manufactures single-walled carbon nanotubes, comprising:

at least a pair of electrodes that generate arc discharges into a vacuum chamber to create discharge plasma, wherein at least one electrode of the pair of electrodes comprises carbon and catalytic particles;

a gas supply unit that supplies a carrier gas into the vacuum chamber;

a raw material supply unit that supplies a carboniferous liquid state material in the discharge plasma through an introduction tube; and

a heater that heats the carboniferous liquid state material.

5. (Amended) An apparatus that manufactures single-walled carbon nanotubes according to Claim 4, wherein the raw material supply unit is capable of supplying a mist of the carboniferous liquid state material.

6. (Amended) An apparatus that manufactures single-walled carbon nanotubes according to Claim 4, further comprising a gap adjustment unit capable of adjusting a distance between the pair of the electrodes.

7. (Amended) An apparatus that manufactures single-walled carbon nanotubes according to Claim 4, further comprising a cooling unit capable of cooling at least one of the pair of the electrodes.

Please add new claims 8-14 as follows:

--8. (New) A method of manufacturing single-walled carbon nanotubes according to claim 1, wherein the metallic catalyst is iron, nickel and/or yttrium.--

--9. (New) A method of manufacturing single-walled carbon nanotubes according to claim 1, wherein the metallic catalyst is yttrium.--

--10. (New) A method of manufacturing single-walled carbon nanotubes according to claim 1, wherein the pressure inside the system is raised to at least 39.9 kPa.--

--11. (New) A method of manufacturing single-walled carbon nanotubes according to claim 1, wherein the pressure inside the system is raised to 39.9 kPa to 79.8 kPa.--

--12. (New) An apparatus that manufactures single-walled carbon nanotubes according to Claim 4, wherein the catalytic particles are nickel, yttrium, and/or carbon particles.--

--13. (New) An apparatus that manufactures single-walled carbon nanotubes according to Claim 4, wherein the catalytic particles is yttrium.--

--14. (New) A method of manufacturing single-walled carbon nanotubes comprising the steps of:

reducing the pressure inside a system to 1.3 Pa or lower;

supplying a carboniferous liquid state material to raise the pressure inside the system to a range of 39.9 kPa to 79.8 kPa;

generating arc discharges;

supplying the carboniferous liquid state material in discharge plasma created by the arc discharges; and